ABSTRACT

system and method for remotely controlling increased number of subsystems having an locomotive control unit (LCU) and two associated operator control units (OCUs) on a single wireless A time slot is assigned to each subsystem for making two-way transmissions to control the locomotive. A signal from an external timing source synchronizes each subsystem to minimize interference between transmissions from different subsystems. Time slots are assigned manually or automatically over a wireless network or by the LCU after monitoring the channel. The automatically selects the direct orrepeater transmission path depending upon whether or receives polling message responses from its associated OCUs. A GPS receiver in each subsystem receives the synchronization signal and provides geographic positioning data so the LCU can determine when predefined, execute position-based commands. secondary OCU may be turned off and rejoined to the subsystem without ceasing operation.